



**Key Largo:
Sea Level Rise**

NRLI seeks to impact decision making in Florida by creating a network of professionals prepared to effectively address natural resource issues through collaborative leadership and conflict management.



Class XIV Fellows on a boat tour during the session 5 field trip.
Photo by Jessica Ireland.

Director's Corner

Challenging Decisions and Decision Fatigue

Jonathan Dain, NRLI Director

Who doesn't think of the Florida Keys as a place to relax and forget about time? Driving along Route 1 to Key Largo can feel like being on a giant skiff with inviting water on both sides and not a worry in sight. There is no better place to enjoy yourself than the Keys, but unfortunately, there are few "better" places to consider sea level rise and decision-making. Salt water laps at restaurant entrances each day and crashes ever deeper onto the land during storm surges.

Local Keys planners worry about fresh water sources, the survival of reefs, and the location of critical infrastructure at many points in the Florida Keys. They worry because computer models tell them to, but more importantly, because they see with their own eyes that the ocean encroaches, slowly, steadily. So, what should be done, when, and how? The topics are complex and controversial and the number and magnitude of decisions can be overwhelming. Meanwhile, visitors from all over the world come to the Keys to get away from the endless decision making of their daily lives. They dive, party, fish; they get out on the warm, clear water, mostly oblivious to the looming threat—decisions, decisions.

In their iconic book *Getting to Yes* (2011), Roger Fisher and William Ury advise us to make decisions — to negotiate — based on interests, not positions. They exhort us to "separate the people from the problem," to use objective criteria, and to practice out-of-the-box thinking in the hope of finding solutions that involve mutual gain for all parties. It is sage and useful advice, but what if conditions are not ideal? What if decision-makers are tired and overworked with unclear options? In Key Largo, NRLI Fellows discussed "decision fatigue," a concept studied by Dr. Roy F. Baumeister (FSU) and a host of others around the world. Overly-simplified, decision fatigue refers to the fact that we have a finite capacity for decision-making; when we have to make too many decisions, we either shut down or make poor choices. Baumeister's research mostly serves as a warning to decision-makers about the illusion of free choice, but it also suggests that those addressing multiple and complicated decisions need to take systematic breaks and, surprisingly, eat something containing glucose if they want to improve their decision-making when tired.

So, will breaks and glucose make sea level rise decision-making easy? Hardly, but Baumeitster's work does have implications for complex and challenging decisions like those linked to sea level rise and other NRLI topics. Simple strategies when issues are complex and decisions multiple include:

1. Take a break before making important decisions;
2. Discuss things in the afternoon, but leave decisions for the following morning;
3. Give people a snack before important decisions are to be made; and/or
4. Take a vacation in the Florida Keys...

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"The Cut," a manmade canal constructed in the 1950s, provides a navigable passageway through the island, connecting the Atlantic Ocean to Florida Bay.
Photo by Jessica Ireland.



A waterfront home in Key Largo.
Photo by Jessica Ireland.

Session Overview

Fellows and Project Team members convened in warm and sunny Key Largo on January 8, 2015 for NRLI Class XIV Session 5. The issue focus for this session was *Sea Level Rise*.

The session began with a presentation by Alicia Betancourt, UF/IFAS Monroe County Extension Director. Alicia provided an overview of cooperative sea level rise planning efforts in Monroe County. Specifically, in 2014, Monroe County launched the GreenKeys program, a plan to create a sustainable Florida Keys. Through this program, Monroe County is seeking input from residents and business owners regarding sustainability issues in the Keys and priority actions to prepare for sea level rise. In addition, Monroe County is a member of the Southeast Florida Regional Climate Compact, a compact of 4 counties, Broward, Miami-Dade, Monroe, and Palm Beach, to coordinate climate change mitigation and adaptation activities across county lines. The compact is using sea level rise scenarios to model potential impacts to infrastructure and habitats that may result from sea level rise by 2030 and 2060. These modeling efforts are being discussed with community members and business owners, resulting in development of recommendations for potential mitigation and adaptation actions.

A group of stakeholders involved in climate change and sea level rise mitigation and adaptation planning joined us for a panel discussion on Friday morning. Stakeholders on the panel included:

- ◆ Sara Hamilton, Environmental & Regulatory Affairs Coordinator, Florida Keys Electric Cooperative (FKEC)
- ◆ Robert Glazer, Associate Research Scientist, Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute
- ◆ Rhonda Haag, Sustainability Program Manager, Monroe County
- ◆ Jerry Lorenz, Director of Research, Audubon Florida Everglades Science Center



Class XIV Fellow Carrie Stevenson (far left) moderated the stakeholder panel in Key Largo. Panelists included (from left) Rhonda Haag, Robert Glazer, Sara Hamilton, and Jerry Lorenz. Photo by Jessica Ireland.

Friday afternoon, we embarked on a boat tour of Florida Bay, led by staff from the Marine Resources Development Foundation Marine Lab. The tour started out on the Atlantic Ocean side of the island, then we went through what locals call “The Cut,” a manmade canal constructed in the 1950s. The Cut provides a navigable passageway through the island, connecting the Atlantic Ocean to Florida Bay. After entering the bay, we meandered through mangrove tunnels and toured neighborhood canals with waterfront homes. During the tour, Fellows noted that much of the infrastructure on these canals is extremely vulnerable to sea level rise.



Scenes from the boat tour of Florida Bay. Photo by Jessica Ireland.

Curriculum Focus: Facilitating Effective Group Decision-Making & Effective Negotiation Processes

Negotiation

NRLI Project Team members Bruce Delaney and Jon Dain led an introduction to negotiation session on Thursday afternoon. The session began with a brainstorming discussion on “what does negotiation mean to you?” and “what are the characteristics of a good negotiator?” Following this brainstorming, Fellows discussed in small groups examples of serious negotiations they’ve been involved in and what made these negotiations effective, or not so effective.

Bruce then introduced the fellows to the method of “principled negotiation, or negotiation on merits.” This process was developed at the Harvard Negotiation Project and employs four standards:

- ◆ Separate the people from the problem
- ◆ Focus on interests, not positions
- ◆ Invent options for mutual gain (“expand the pie”)
- ◆ Insist on objective criteria (use measurable, verifiable criteria) (Fisher and Ury 2011)

In this type of negotiation, participants are engaged in solving problems, and the goal is to reach a “wise outcome” in an efficient and amicable manner (Fisher and Ury 2011).

Following this introduction, Jon provided Fellows with background and role information for a negotiation simulation to take place on Saturday. The simulation, “Cornwallis ‘County by the Sea’ Waste Disposal,” involves a negotiation over the siting of a waste disposal facility in a county on the coastal plain of the eastern United States. Each Fellow was assigned a role in the activity. These roles included facilitator, park managers for the State Department of Parks, representatives from the Audubon Society, staff members from the Regulatory Division of the U.S. Army Corps of Engineers, County Commissioner, regional representatives of a conservation organization, homeowners association officers, president of the Chamber of Commerce, county administrator, and director of the county solid waste program. Fellows used time between Thursday and Saturday to prepare for the negotiation. To guide them in planning, Fellows were encouraged to think about the following:

- ◆ Their interests;
- ◆ Their ‘Best Alternative to a Negotiated Agreement’ (BATNA) (Fisher and Ury 2011);
- ◆ Their ‘Worst Alternative to a Negotiated Agreement’ (WATNA) (Fisher and Ury 2011);
- ◆ The best outcome for them in the negotiation;
- ◆ Conversely, the least favorable outcome they would accept in the negotiation;
- ◆ The other parties’ interests; and
- ◆ The BATNAs and WATNAs for the other parties.



Class XIV Fellows (from left) Clay Coarsey, Stacie Auvenshine, and Beth Dieveny discuss interests and options during the “Cornwallis County by the sea” negotiation activity. Photo by Jessica Ireland.



Class XIV Fellows Jeremy Olson and Jessica Mendes facilitated the “Cornwallis County by the sea” negotiation. Photo by Jessica Ireland.



Facilitator Jeremy Olson looks on as Class XIV Fellows Allen Scheffer, Carrie Stevenson, Bonnie Wolff Pelaez, and Kimberly Sykes employ the practices of principled negotiation during the “Cornwallis County by the sea” negotiation activity. Photo by Jessica Ireland.

Curriculum Focus cont'd

Understanding Group Dynamics & Facilitation

We are all members of many groups, including social or religious groups, committees, sports teams, or clubs. No matter the type, all groups are governed by standards, whether written or unwritten, and have specific goals and objectives that guide their actions. Individuals develop habits of group participation over time, some of which help a group work towards its goals, and some of which hinder a group from getting its job done.

To demonstrate habits and functions of groups, Jessica Ireland led the group through an activity titled “Lost at Sea”. During this activity, eight Fellows are on a research team out at sea and must abandon ship and board an inflatable life raft. The group has to come to consensus on which 5 items to take with them onto the inflatable raft (from a list of 18 items). During the activity, each of the eight group members is confidentially assigned a specific role/function within the group: give information; seek information; clarify, elaborate, or summarize; hold side conversations and joke; monitor and encourage participation; curmudgeon; know-it-all or boaster; and closed-mouthed. The rest of the Fellows acted as observers during this role play, tasked with identifying the various functions within the group.

Following the “Lost at sea” activity, Jon Dain led a discussion on group task and maintenance functions. Task functions include initiating ideas or processes, seeking information, giving information, clarifying and elaborating, summarizing, consensus testing, and challenging/questioning assumptions. Maintenance functions include mediating (reducing tension, exploring needs and interests), monitoring participation, monitoring group energy levels, setting standards, and building trust (Mill 1980). In a group

setting, it is important to learn to avoid playing an individual role, and instead, to perform as many of the task and maintenance functions as are necessary to aid the group in meeting its goals. Next, Fellow Beth Dieveney served as facilitator of a group discussion regarding strategies for discussing climate change. This activity provided an opportunity for the group to observe a facilitator and to discuss the role of a facilitator. It also allowed Beth to reflect on what went well and what she would done differently. In addition, the group provided feedback to Beth on their experience as participants in a facilitated discussion. A facilitator’s role includes: filling unfilled roles in group, helping the group through sticking points in decision making, and managing process rather than content.

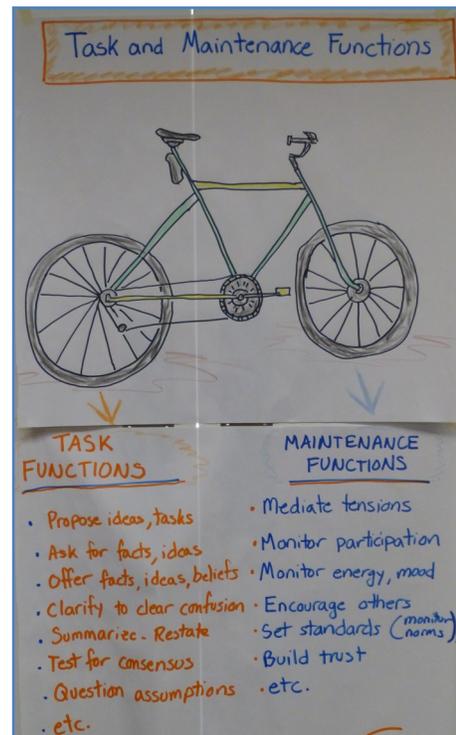
Finally, Jon introduced the group to the concept of the “Groan Zone” (Kaner et al. 2007). In an idealized depiction of group decision making, a group gets together to discuss a topic and ideas and perspectives are shared, resulting in divergent thinking, which is directly followed by convergent thinking leading to a decision point (Kaner et al. 2007). In reality, between the periods of divergent and convergent thinking, there is a period of struggle and frustration, a time when misunderstanding and miscommunication abound. This is described by Kaner et al. as the Groan Zone (2007). It is important for groups to recognize that the Groan Zone exists and to work through this period rather than become disillusioned and giving in. Groups that can endure the Groan Zone are more likely to find common ground and achieve innovative thinking (Kaner et al. 2007).



Class XIV Fellow Beth Dieveney facilitates a group discussion on “three strategies for discussing climate change”. Photo by Jessica Ireland.



Class XIV Fellows (from left) Scott Calleson, Kimberly Sykes, James Erskine, and Matthew Arsenault in a breakout group discussion during the facilitation activity. Photo by Jessica Ireland.



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Working Together Toward Solutions

Kimberly Sykes & Patty Hutfles (Class XIV Fellows)

Each month, we ask a pair of Fellows to reflect on the session in their own words. This article describes the key takeaways from the point of view of Fellows Kimberly Sykes and Patty Hutfles.

The panel discussion provided us with insight into the issues and complexity faced by the residents of Key Largo. Built infrastructure such as roads and buildings are already being impacted by storm events and high tide. With the sea level rise predicted to continue, more areas will be flooded. Aside from infrastructure, wildlife and habitat will also be greatly affected. Conservationists are just beginning to look at these effects and try to determine the best course of action for the future.

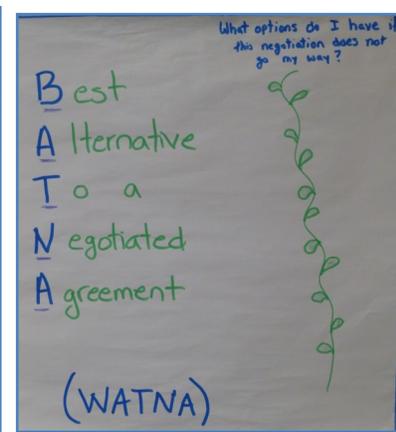
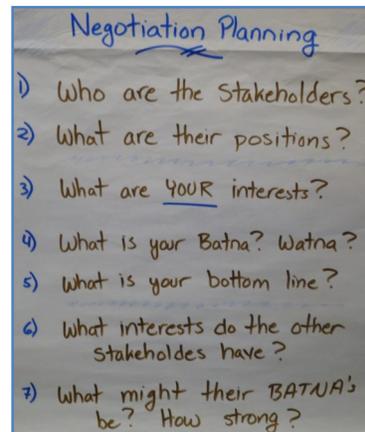
This panel discussion gave a unique insight into stakeholders working together even though the cause of the issue was in question. While the debate still rages on the cause of sea level rise, no one can deny the effects and the challenges it produces for development in low lying coastal areas; these challenges are today's issues not 100 years into the future. The stakeholders took an unusual strategy in not addressing the "why" of sea level rise, but in finding common ground on the effects that it will have on these low lying communities. By using data that showed a range of predicted sea level rise and presenting the data effects on the local area graphically, the stakeholders could see the effect flooding would have on their homes, businesses, and community.

Once stakeholders agreed on the flooding effects, then they got past the disagreement of "why" and could work on finding solutions.

We also learned to recognize the Best Alternative To a Negotiated Agreement (BATNA) in a situation. An exercise was used to demonstrate a real life scenario of trying to locate landfill within the community. Each fellow had an assigned role to represent a stakeholder group. It was very interesting the dynamics of positions and which groups aligned together to get their desired needs met. Although everyone did not put all of their information on the table, the groups worked together behind the scenes to find common ground and agreed on a resolution. However, once it was revealed during the "council meeting" that the decision to split the acreage needed for the landfill might not be a feasible alternative for the city, the negotiations quickly broke down. This exercise really drove home doing your homework for each stakeholder's BATNA and their interests and positions. It also revealed that while stakeholders may think they have the same goal, each stakeholder's vision of how to accomplish that goal may be very different. When powerful personalities are added to the mixture, some stakeholder's viewpoints are overwhelmed. The challenge is to manage the powerful personalities while deciphering everyone's BATNA to work toward a resolution.



Key Largo built infrastructure such as roads and buildings are already being impacted by storm events and high tide. Photos by Jessica Ireland.



Class XIV Fellows discuss negotiation strategies during the "Cornwallis County by the Sea" activity. Photo by Jessica Ireland.

NRLI Class XIV Fellow Spotlight

Jeremy Olson

Land Manager, St. Johns River Water Management District



Jeremy Olson is a Land Manager with the St. Johns River Water Management District, where he has been employed since 2012. His primary task is managing and restoring ecological function on the District-owned lands in Alachua and Putnam Counties. He also serves on the District's Land Management Enhancement Initiative

team, responsible for identifying and implementing restoration and vegetation management projects on approximately 700,000 acres of District-owned lands to enhance long-term ecologic and hydrologic conditions. Prior to working for SJRWMD, Jeremy worked 7 years as a Fish and Wildlife Biological Scientist III for the Florida Fish and Wildlife Conservation Commission (FWC). While with FWC, he managed wildlife habitat and public use on Triple N Ranch, Bull Creek, and TM Goodwin Wildlife Management Areas.

Jeremy earned a Bachelor's degree and a Master's degree in Wildlife Ecology and Conservation from the University of Florida. While a graduate student, he was tasked with studying the efficacy of camera-trap surveys for monitoring Wild Turkey population trends. He helped capture and band over 300 turkeys using rocket nets and published the results in a peer-reviewed scientific journal. Prior to graduate school, Jeremy worked for FWC's alligator management section and assisted with University of Florida alligator research. In those roles, he helped collect alligator eggs for licensed farms and captured adults for an investigation into the Lake Griffin "zombie" alligator mystery.

While not working, Jeremy enjoys exploring, fishing and hunting with his wife, Adrienne, and son, Landon.

Matthew Arsenault

Policy Analyst, Office of Energy, Florida Department of Agriculture and Consumer Services



Matthew Arsenault graduated from Florida State University in 2010 after interning with a local consulting firm. He then served as the legislative aide for Florida House of Representatives District 46 in Pasco County. In his role as legislative aide, he became familiar with a broad spectrum of policy issues as well as the workings of the state legislature. Next, Matthew took this

experience to what was then the Governor's Energy Office, working to conclude the Florida Solar Energy System Incentives Program and managing a portfolio of energy grants. The office was transferred to the Florida Department of Agriculture and Consumer Services and Matthew was promoted to his current role of policy analyst.

Class XIV Session 6

Class XIV will be in the Hastings/
Tri-County Agricultural Area for session 6,
February 19-21, 2015.

The issue focus is agricultural best management practices and water quality/ quantity and the curriculum focus is facilitating planning amidst complexity and tension.

NRLI Class XIV Fellow Spotlight

Tamela Kinsey

Environmental Engineer, U.S. Army Corps of Engineers, Jacksonville District



In 2002, Tamela began working at the U.S. Army Corps of Engineers (USACE) as a co-op student in the Project Management Division while attending the University of North Florida (UNF) in pursuit of a Bachelors in Civil Engineering. Following graduation from UNF in 2004, Tamela was accepted in the Intern Program coordinated under the USACE Engineering Division. During the 1-year rotational assignment, Tamela had the unique opportunity to work in the Construction/Operations Division, Regulatory Division, Planning Division, and

several Sections within the Engineering Division within the USACE. This experience provided an opportunity to get an understanding of many areas within the USACE and have a more thorough understanding and appreciation of the many different jobs that play an important role in the organization's successes. Once this internship was completed, Tamela

accepted a position in the Planning Division. In 2006, Tamela graduated with a Master of Engineering degree from the University of Florida and, in 2013, successfully completed the requirements in obtaining the Professional Engineering Licensure in the State of Florida.

During her tenure working for the USACE Planning Division (2005 to present), Tamela has held two different positions, a Planning Technical Lead and a Water Quality / Compliance, Environmental Lead. In both of these roles, Tamela has worked with many stakeholders such as local public members, environmental organizations, Native American tribes of Florida, County and State representatives, as well as regulatory agencies such as the Fish and Wildlife Service and the Florida Department of Environmental Protection. Tamela has worked on a range of projects, most notably, projects in the Coastal Renourishment Program and the Comprehensive Everglades Restoration Program (CERP). In addition to these primary roles, Tamela also has experience working with the Emergency Management Office in preparation, response, and recovery of natural disasters such as hurricanes that have impacted the State of Florida.

NRLI Alumni Spotlight

Rainer Schael, NRLI Class VII

President, RS Environmental Consulting, Inc.



Rainer Schael is the founder and president of RS Environmental Consulting, Inc., an environmental consulting firm with a focus on wetland permitting and mitigation projects in Dade County. Mr. Schael serves as project manager for high profile projects and clients as well as ensuring that all submittals prepared by staff meet company philosophy. He also oversees the day to day operations of the company, including financials, proposals and client relations.

Mr. Schael received a B.A. in Environmental Studies from Rollins College in 1999. In addition to business operations, Mr. Schael is also a volunteer for Dade County Science Fair and a variety of environmental education programs, including classroom lectures and field trips. Mr. Schael and his wife recently oversaw an annual fundraiser for Everglades National Park, "Rainer & Noel's Excellent Camping Adventure." This fundraiser raised \$8,000 for Everglades National Park, and brought 220 people into the park.

He is also an alumnus of the University of Florida's Natural Resources Leadership Institute, the Chairman of the Village of Palmetto Bay's Building & Permitting Advisory Committee, a Board Member on the Herman Lucerne Memorial Fishing Tournament, and a Trustee with the South Florida National Parks Trust.

Class XIV Fellows

Alison Adams, Assistant Professor, University of Florida School of Forest Resources and Conservation

Carrie Stevenson, Coastal Sustainability Agent, UF/IFAS Escambia County Extension

Gene McAvoy, Regional Vegetable Extension Agent/County Extension Director, UF/IFAS Hendry County Extension

Jeremy Olson, Land Management Specialist, St. Johns River Water Management District

Kimberly Sykes, Deputy Manager, Crystal River National Wildlife Refuge Complex, U.S. Fish and Wildlife Service

Clay Coarsey, Professional Engineer, Suwannee River Water Management District

Greg Gibson, Lt. Colonel/Deputy Director, Division of Law Enforcement, Florida Fish and Wildlife Conservation Commission

Matt Arsenault, Policy Analyst, Florida Department of Agriculture and Consumer Services Office of Energy

Stacie Auvenshine, Biologist, U.S. Army Corps of Engineers

Bonnie Wolff Pelaez, Environmental Manager, Florida Department of Agriculture and Consumer Services

Scott Calleson, Biological Scientist IV, Division of Habitat and Species Conservation, Florida Fish and Wildlife Conservation Commission

Patty Hutfles, Senior Project Manager, Johnson & Johnson Vision Care, Inc.

Beth Dieveney, Deputy Superintendent for Science and Policy, National Oceanic and Atmospheric Administration

Tamela Kinsey, Environmental Engineer, U.S. Army Corps of Engineers

Jessica Mendes, Research Analyst, Lee County Environmental Policy Management

James Erskine, Acting Director, Water Resources Department, Miccosukee Tribe of Indians of Florida

Allen Scheffer, Assistant Director of Field Services District I, Florida Farm Bureau Federation



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